

### **REMARKS**

This reply responds to the Office Action mailed on July 9, 2008.

Claims 1, 2, 7, 12, and 13 and withdrawn claims 20, 26, 32, and 38 are amended, no claims are canceled, and no claims are added; as a result, claims 1-45 are now pending in this application with claims 1-19 currently being examined. The amendments to the claims are fully supported by the specification as originally filed. No new matter is introduced. Applicant respectfully requests reconsideration of the above-identified application in view of the amendments above and the remarks that follow.

Support for the amendments may be found in the specification, for example, at page 7, line 23 – page 8, line 4.

#### **§112 Rejection of the Claims**

Claims 7-11 were rejected under 35 U.S.C. § 112, first paragraph, as lacking adequate description or enablement. Applicant amends claim 7 to correct a typographical error.

Applicant respectfully requests withdrawal of these rejections of claims 7-11, and reconsideration and allowance of these claims.

#### **§102 Rejection of the Claims**

Claims 1-3, 7-14, and 18-19 were rejected under 35 U.S.C. § 102(e) for anticipation by Kaushik et al. (U.S. Patent No. 6,541,280; hereinafter “Kaushik”). Applicant traverses these grounds of rejection of these claims.

Applicant cannot find in Kaushik a disclosure or a suggestion of a electronic device including a film having La<sub>2</sub>O<sub>3</sub>, LaAlO<sub>3</sub>, and Al<sub>2</sub>O<sub>3</sub> as recited in independent claims 1, 2, 7, 12, or 13. In the Office Action, it is stated that “a layer of LaAlO<sub>3</sub> inherently includes a layer of La<sub>2</sub>O<sub>3</sub>.” Applicant disagrees. LaAlO<sub>3</sub> is a bimetal oxide while La<sub>2</sub>O<sub>3</sub> is a single metal oxide and Al<sub>2</sub>O<sub>3</sub> is a single metal oxide. As such, the bonding is different among these materials. No objective evidence or explicit reference has been cited to support the Office Action statement. With reference to the above Office Action quote, it is stated in the Office Action that “Kaushik discloses that the layer of LaAlO<sub>3</sub> is actually two metal oxide layers (aluminum oxide and lanthanum oxide)(col. 3, lines 35-42).” First, Applicant notes that an inventor can be his own

lexicographer. Further, Applicant submits that Kaushik at column 3, lines 35-42 does not recite the proposition in the above quote of the Office Action. Kaushik at column 3, lines 34-42 recites:

Thus in one sense each introduction of a material is a layer of deposition. In this case, each full cycle constitutes four layers of deposition, one lanthanum, one aluminum and two oxygen so that it is layer by layer in deposition but the resulting four layers would be observable as two metal oxide layers, one of aluminum/oxygen and the other as lanthanum/oxygen. These two layers thus comprise a single layer of lanthanum aluminate. (*underlining added*)

Applicant submits that it is clear that Kaushik is defining the general term “layer of lanthanum aluminate” to include a layer of aluminum oxide and a layer of lanthanum oxide. Applicant submits that this definition of lanthanum aluminate by Kaushik does not support the Office Action proposition that a layer of a bimetal oxide such as La<sub>x</sub>Al<sub>y</sub>O<sub>z</sub> (x, y, and z being greater than zero) is a layer of La<sub>r</sub>O<sub>s</sub> (r and s being greater than zero) and a layer of Al<sub>t</sub>O<sub>v</sub> (t and v being greater than zero).

Further, Applicant cannot find in Kaushik a disclosure or a suggestion of a electronic device including a film having La<sub>2</sub>O<sub>3</sub>, LaAlO<sub>3</sub>, and Al<sub>2</sub>O<sub>3</sub>, where the Al<sub>2</sub>O<sub>3</sub> is structured as a layer having a thickness essentially equal to a minimum number of monolayers to provide a bulk band gap of Al<sub>2</sub>O<sub>3</sub>, as recited in each of amended independent claims 1, 2, 7, 12, or 13. Therefore, Applicant submits that Kaushik does not teach each and every claim element of each of these independent claims, that Kaushik does not teach the identical invention in as complete detail as is contained in each of these independent claims, and/or that Kaushik does not teach each and every claim element arranged as in each of these independent claims. Thus, Applicant submits that Kaushik does not anticipate claims 1, 2, 7, 12, or 13 and that claims 1, 2, 7, 12, and 13 are patentable over Kaushik. Claim 3, claims 8-11, and claims 14, 18, and 19 depend from claims 2, 7, and 13, respectively, and are patentable over Kaushik for at least the reasons stated herein with respect to claims 2, 7, and 13.

Applicant respectfully requests withdrawal of these rejections of claims 1-3, 7-14, and 18-19, and reconsideration and allowance of these claims.

### §103 Rejection of the Claims

Claims 4-6 and 15-17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over

Kaushik.

Claim 4, claims 5 and 6, claim 15, and claims 16 and 17 depend from claims 2, 1, 13, and 12, respectively. Applicant submits that claims 4-6 and 15-17 are patentable over Kaushik for at least the reasons stated herein with respect to claims 1, 2, 12, and 13.

Applicant respectfully requests withdrawal of these rejections of claims 4-6 and 15-17, and reconsideration and allowance of these claims.

*Withdrawn Claims*

In the Restriction Requirement mailed 29 September 2005, original claims 1-6 were acknowledged as generic to all original species. Withdrawn independent claims 20, 26, 32, and 38 were amended to include the features of amended claim 13. Claim 13 was previously amended into independent form including all of the limitations of base claim 12 for which claim 1 remains generic. With the allowance of claim 13, Applicant respectfully requests the rejoinder and allowance of claims 20-45. *See M.P.E.P. 809 and 821.04.*

*Reservation of Rights*

Applicant does not agree with one or more comments in the instant Office Action. However, Applicant has limited the discussion of the traversal of the Office Action rejections to such discussion as is necessary to efficiently expedite the prosecution of the abovementioned application. Applicant reserves the right to further address the comments of the Examiner at a later date if necessary.

**CONCLUSION**

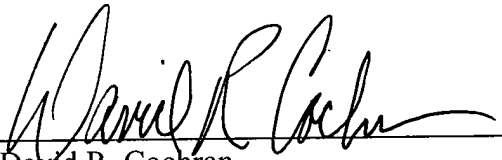
Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's representative at (612) 371-2157 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

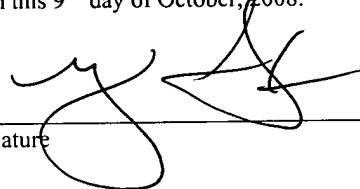
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Date 9 October 2008

By   
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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 9<sup>th</sup> day of October, 2008.

  
Name

  
Signature